

(2) A statement of the concentration or strength contained therein.

(3) Adequate use directions to provide for a finished article with the proper concentration of the additive as provided in paragraph (b) of this section, whether or not intermediate premixes are to be used.

(d) The label of any animal feed containing the additive shall, in addition to the other information required by the act, bear the statement "Ethoxyquin, a preservative" or "Ethoxyquin added to retard the oxidative destruction of carotene, xanthophylls, and vitamins A and E."

§ 573.400 Ethoxyquin in certain dehydrated forage crops.

Ethoxyquin (1,2-dihydro-6-ethoxy-2,2,4-trimethylquinoline) may be safely used in the dehydrated forage crops listed in paragraph (a) of this section when incorporated therein in accordance with the conditions prescribed in this section:

(a) It may be added to dehydrated forage prepared from:

Alfalfa	Medicago sativa.
Barley	Hordeum vulgare.
Clovers:	
Alsike clover	Trifolium hybridum.
Crimson clover	Trifolium incarnatum.
Red clover	Trifolium pratense.
White clover (including Ladino).	Trifolium repens.
White sweetclover	Melilotus alba.
Yellow sweetclover	Melilotus officinalis.
Coastal Bermudagrass	Cynodon dactylon.
Corn	Zea mays.
Fescue	Festuca sp.
Oats	Avena sativa.
Orchardgrass	Dactylis glomerata.
Reed canarygrass	Phalaris arundinacea.
Ryegrass (annual and perennial).	Elymus sp. and Lolium perenne.
Sorghums	Sorghum vulgare vars, feterita, shallu, kaoliang, broomcorn.
Sudan grass	Sorghum vulgare sudanense.
Wheat	Triticum aestivum.

or any mixture of such forage crops, for use only as an animal feed.

(b) Such additive is used only as a chemical preservative for the purpose of retarding oxidative destruction of naturally occurring carotenes and vitamin E in the forage crops.

(c) It is added to the dehydrated forage crops in an oil mixture containing only suitable animal or suitable vegetable oil, prior to grinding and mixing.

(d) The maximum quantity of the additive permitted to be used and to remain in or on the dehydrated forage crop shall not exceed 150 parts per million.

(e) To assure the safe use of the additive, the label of the market package shall contain, in addition to other information required by the act:

(1) The name of the additive as specified in this section.

(2) Directions for the incorporation of the additive in the forage crops, as specified in paragraph (c) of this section, with the directive that only suitable animal or suitable vegetable oils are to be used in the oil mix.

(f) The label of any dehydrated forage crops treated with the additive or the label of an animal-feed supplement containing such treated forage crops, shall, in addition to other information required by the act, bear the following statements:

(1) "Ethoxyquin, a preservative," or "Ethoxyquin added to retard the oxidative destruction of carotene and vitamin E."

(2) The statement "For use in animal feed only."

§ 573.420 Ethyl cellulose.

The food additive ethyl cellulose may be safely used in animal feed in accordance with the following prescribed conditions:

(a) The food additive is a cellulose ether containing ethoxy (OC₂H₅) groups attached by an ether linkage and containing on an anhydrous basis not more than 2.6 ethoxy groups per anhydroglucose unit.

(b) It is used or intended for use as a binder or filler in dry vitamin preparations to be incorporated into animal feed.

§ 573.440 Ethylene dichloride.

The food additive ethylene dichloride may be safely used in the manufacture of animal feeds in accordance with the following prescribed conditions:

(a) It is used as a solvent in the extraction processing of animal byproducts for use in animal feeds.

(b) The maximum quantity of the additive permitted to remain in or on the extracted byproducts shall not exceed 300 parts per million.

(c) The extracted animal byproduct is added as a source of protein to a total ration at levels consistent with good feeding practices, but in no event at levels exceeding 13 percent of the total ration.

§ 573.450 Fermented ammoniated condensed whey.

(a) *Identity.* The product is produced by the *Lactobacillus bulgaricus* fermentation of whey with the addition of ammonia.

(b) *Specifications.* The product contains 35 to 55 percent crude protein and not more than 42 percent equivalent crude protein from nonprotein nitrogen sources.

(c) *Uses.* The product is used as a source of protein and nonprotein nitrogen for cattle.

(d) *Limitations.* (1) Store in a closed vented tank equipped for agitation. Agitate 5 minutes before using. Do not store at temperature above 110° F (43° C).

(2) The maximum level of use of fermented ammoniated condensed whey and equivalent crude protein from all other added forms of nonprotein nitrogen shall not exceed 30 percent of the dietary crude protein.

(3) The additive may be used as follows:

(i) Mixed with grain, roughage, or grain and roughage prior to feeding.

(ii) As a component of free-choice liquid feeds, used to supplement the diets of cattle fed other sources of nutrients, fermented ammoniated condensed whey shall not exceed 80 percent of the free-choice liquid feed.

(e) *Labeling.* The label shall bear, in addition to other information required by the act:

(1) The name of the additive.

(2) The maximum percentage of equivalent crude protein from nonprotein nitrogen.

(3) Adequate directions for use in accordance with the provisions in paragraph (d) of this section.

[43 FR 33708, July 1, 1978, as amended at 46 FR 49115, Oct. 6, 1981]

§ 573.460 Formaldehyde.

The food additive formaldehyde may be safely used in the manufacture of

animal feeds in accordance with the following conditions:

(a) The additive is used, or intended for use, to improve the handling characteristics of animal fat in combination with certain oilseed meals by producing therefrom a dry, free-flowing product as follows:

(1) An aqueous blend of soybean and sunflower meals in a ratio of 3:1, respectively, is mixed with animal fat such that the oilseed meals and animal fat are in a ratio of 3:2. The feed ingredients are those defined by the "Official Publication" of the Association of American Feed Control Officials, Inc., 1976 ed., pages 86, 103, and 109.¹

(2) Formaldehyde (37 percent solution) is added to the mixture at a level of 4 percent of the dry matter weight of the oilseed meals and animal fat. This mixture, upon drying, contains not more than 1 percent formaldehyde and not more than 12 percent moisture.

(b) The dried mixture described in paragraph (a) of this section is used, or intended for use, as a component of dry, nonpelleted feeds for beef and nonlactating dairy cattle.

(c) To assure safe use of the additive, in addition to the other information required by the Act, the label and labeling of the dried mixture described in paragraph (a) of this section shall bear:

(1) The name of the additive.

(2) Adequate directions for use providing that feed as consumed is not to contain more than 25 percent of the mixture.

[41 FR 38652, Sept. 10, 1976, as amended at 54 FR 18281, Apr. 28, 1989]

§ 573.480 Formic acid.

Formic acid may be safely used as a preservative in hay crop silage in an amount not to exceed 2.25 percent of the silage on a dry weight basis or 0.45 percent when direct-cut. The top foot of silage stored should not contain formic acid and silage should not be fed to livestock within 4 weeks of treatment.

¹Copies of the current edition may be obtained from the Treasurer, Donald H. James, West Virginia Department of Agriculture, Capital Complex/Guthrie Center, Charleston, WV 25305.